

PATENT

IN THE ABSTRACT

Please replace the Abstract with the following amended Abstract:

An efficient retransmission of data using symbol accumulation wherein a first set of data symbols is encoded, producing a first set of encoded symbols and a second set of encoded symbols. The first set of encoded symbols is then transmitted in a first frame. A second set of data symbols is then encoded to produce a third set of encoded symbols. The first frame is then analyzed to ascertain whether it failed to decode. If the first frame failed to decode, a minimum retransmission power level for the second set of encoded symbols is determined. The second and third sets of encoded symbols are determined. The second and third sets of encoded symbols are then sent in a second frame, thus improving the probability of correct decoding. the packet received in error is retransmitted at a lower energy per bit level concurrently in the same frame with the new packet. The destination device receives the data transmission and retransmission, demodulate the signal, and separates the received data into the new and retransmitted packet. The destination device then accumulates the energy of the retransmitted packet with the energy already accumulated for the packet received in error and decodes the accumulated packet. The accumulation of the additional energy provided by the subsequent retransmissions improves the probability of a correct decoding. The throughput rate can be improved since the packet received in error is retransmitted concurrently with the transmission of the new data packet. The capacity is maximized since the retransmission of the packet received in error is at a lower energy level than that of the new packet.